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On Hunger and Public Action

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A new book on the use of public action to avoid famines and reduce chronic hunger not only prescribes things to do but also recommends new ways to think about what actions will be most effective in the future.

This paper — a product of the Agricultural Policies Division, Agriculture and Rural Development Department — is part of a larger effort in PRE to understand better the causes of hunger and how it can be prevented. Copies are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Cicely Spooner, room N8-037, extension 30464 (38 pages).

Ravallion's article is a commentary on a new book "Hunger and Public Action," by Jean Dreze and Amartya Sen. Ravallion compares the book's conceptual approach and policy recommendations to those of other recent writings on poverty and hunger.

Dreze and Sen advocate a very broad view of the factors determining human well-being, arguing that expanding *capabilities* for doing things of value should be the criterion for public choice.

Researchers trying to understand the causes of a particular famine or to anticipate future famines have usually concentrated on information about aggregate food availability. Some have deemed this to be the only information necessary to understand famine. A better approach, the authors argue, is to focus on the determinants of individual *entitlements* — the command of people over food and other necessities.

The study argues that government can prevent famines by protecting the entitlements of vulnerable groups. This can also have beneficial long-term effects on development.

The authors examine several successful government efforts to reduce or eliminate chronic hunger. They show how countries such as Chile, China, Costa Rica, Cuba, and Sri Lanka

have used public provision to achieve the social indicators typical of richer countries.

Ravallion critically assesses the book's conceptual framework, data, and methods of analysis. He concludes that, despite some shortcomings in the book, the authors make a convincing case for a positive role for public action in famine relief and longer term alleviation of poverty and hunger. Even poor countries with limited domestic resources can participate in this kind of positive approach. Ravallion examines the implications for the role of the international community.

Famines are avoidable and it is not necessary for governments to wait for an increase in domestic aggregate food availability before they take some steps to head off famine. Governments can also act to alleviate chronic hunger and the threat of destitution without waiting for overall economic growth to solve the problem.

However, the right sort of growth can have an enormously important role in alleviating chronic hunger and facilitating public support, particularly in human resource development.

Much remains unknown about the most effective public action against hunger in specific countries. Future research on development policy should make this a high priority.

The PRE Working Paper Series disseminates the findings of work under way in the Bank's Policy, Research, and External Affairs Complex. An objective of the series is to get these findings out quickly, even if presentations are less than fully polished. The findings, interpretations, and conclusions in these papers do not necessarily represent official Bank policy.

On Hunger and Public Action

by
Martin Havallion

Table of Contents

1.	Concepts	2
2.	How is this approach different?	4
3.	Data and methods	10
4.	Famines	13
	4.1 Markets and famines	15
	4.2 "Cash" versus "food"	18
	4.3 Reaching the vulnerable	20
5.	Chronic hunger	23
6.	On the role of the international community	29
7	Conclusions	32
	Endnotes	35
	References	36

ON HUNGER AND PUBLIC ACTION

Martin Ravallion

Our understanding of what causes hunger has come a long way in the past ten years or so. Progress has also been made in understanding how public action can help fight hunger, and there are reasons for qualified optimism about future prospects in doing so. The recent publication of Hunger and Public Action by Jean Dreze and Amartya Sen makes this a good time to take stock of some of the lessons learnt, and of some of the things we still need to know more about.¹ That is the purpose of this article.

The Dreze and Sen book is a good starting point for a discussion of anti-hunger policy. While making an outstanding contribution to the literature, it is also an accessible book, written with clarity of thought, and economy of technique. But it is more than a book about specific policies; it is also an applied study in aspects of the theory of policy. It not only prescribes things to do, it also prescribes a way to think about what we should do. New concepts are advocated for that task. This article will try to critically evaluate the arguments of Hunger and Public Action (hereafter HPA) in the light of recent literature and experience, with the aim of assessing implications for both policy, and the way we think about policy.

HPA is certainly a scholarly book, but it is one with a clear and potentially influential prescriptive message. I found myself in sympathy with that message. And I believe it is one around which a reasonably broad consensus could now be formed in the development community, particularly in

the light of the not dissimilar views found in the other major works on this topic to emerge in the last year or so, most notably the UNDP's Human Development Report, and the World Bank's 1990 World Development Report (UNDP, 1990; World Bank, 1990). However, I did feel uncomfortable at times with the emphasis given to certain aspects of HPA's message, and with some of the data and methods used to support it. These are not issues that can be easily resolved, though they are important. This article will also try to identify points where further research on anti-hunger policy seems called for.

Part 1 of HPA deals with the concepts used, and surveys some evidence on relevant magnitudes. Part 2 deals with famine prevention, while Part 3 looks at the longer term issues of anti-hunger policy. I shall broadly follow the same structure. After summarizing the key concepts in HPA, I shall offer a critical assessment of the differences between this book's approach and more familiar alternatives. I shall also make a few observations about the limitations of the data and methods used in HPA. I will then turn to the substantive policy issues raised in HPA, concerning (first) famine prevention and relief, and (second) anti-hunger policy in the longer term. Here I shall try to evaluate the arguments made, and elaborate on some key issues. Before concluding, I shall offer a few observations on the implications for international development assistance.

1 Concepts

I shall first summarize the main concepts used in HPA. The next section will offer a critical comparison with some more familiar ideas.

Let us begin with the concepts in the book's title. The definition of "hunger" in HPA is broad in that it embraces all kinds of biological and

social disadvantages which may be associated with inadequate food intakes. Thus, for example, adaptation to low food energy intakes by lowering activity levels may not leave a person "hungry", by his or her own assessments. Sen and Dreze would, nonetheless, deem this to be a food related deprivation within the scope of their study -- in short, a problem of hunger. Also the HPA concept of "public action" embraces non-governmental actions in a public domain, and so involves a lot more than "public policy", in the usual sense. For example, the voluntary provision of relief against hunger in a community -- the so-called "moral economy" in some anthropological literature -- constitutes "public action" in HPA.

The book's policy analysis is grounded in the concepts of "entitlement", "functioning" and "capability", drawn from Amartya Sen's work at the interface of welfare economics and moral philosophy (see, for example, Sen 1984, Chapter 13; 1985; 1989a). Thus, HPA is not only of interest for what it says to do about policy; it is also of interest as an application of these concepts to policy issues.

The concept of entitlement is used throughout this book, following Sen (1981a). A person's entitlements over some time period are the various consumption bundles that are legally attainable from that person's initial endowments, given prevailing prices. HPA also refers to "extended entitlements", being the extra command over goods allowed by implicit contracts or social customs which, though they create claims over consumption, are not legally enforceable.

A theme of HPA is that entitlements should not be viewed as the final objective of human well-being. Rather it is the capability for doing valued things (called functionings) that ultimately matters: "Formally, a person's

capability is a set of functioning bundles, representing the various 'beings and doings' that a person can achieve with his or her economic, social, and personal characteristics" (HPA, p.12, footnote 18). Furthermore, the authors argue that the goal of public action should be to expand human capabilities, rather than entitlements per se.

The specific capability of most importance to the topic of HPA is that of being alive and healthy. Being adequately nourished is seen as essential for this capability. Here the authors also take a broad view, in which variability in nutrient needs for good health is emphasized, as is the importance of complementary inputs such as health care, basic education, clean drinking water, and adequate sanitation.

One (more familiar) concept is conspicuous for its absence from HPA, namely "food security". Earlier inconsistencies in the usage of this term have largely vanished; food security is now widely defined as "...access by all people at all times to enough food for an active and healthy life" (World Bank, 1986, p.1). Dreze and Sen are careful about words, and I am sure they have their reasons for avoiding this term. I expect they view it as giving undue emphasis to command over goods, and just one bundle of goods, food. Nonetheless, much of HPA is unquestionably about attaining food security, and there is clearly a broad consensus on substance with other recent writings on food security, including the Bank's policy paper on the topic (World Bank, 1986).

2 *How is this approach different?*

The concept of "hunger" found in research and policy is sometimes far more narrow than that used by Dreze and Sen. I believe their broader

perspective is warranted. A person who adapts to low food energy intake through diminished activity levels (recalling the aforementioned example) is someone who one would want to help through anti-hunger policies. Yet some approaches found in both research and practice would (at least implicitly) dictate otherwise. For example, the use of child anthropometric measures (such as weight-for-age) to indicate nutritional need is suspect from this point of view. (It has been found that seemingly satisfactory physical growth rates on children are maintained at low food energy intake levels by not playing; see Beaton's 1983 survey. That is surely a serious food related deprivation for any child.)

The broader concept of hunger used by Dreze and Sen is motivated by the above ideas of "functioning" and "capability". This approach will be novel to many present day economists, and others (though it does have roots in classical political economy, and, indeed, Aristotle's views on "political distribution"; see Sen, 1989a). Thus it might be considered a significant departure from present-day "mainstream" approaches to the welfare economics of public policy. Is it?

Dreze and Sen emphasize the inadequacies of viewing consumption of commodities as an end in itself (also a prominent theme of the Human Development Report). However, I do not think that the real difference lies here, at least in theory. The current mainstream approach in economic theory, which is clearly seen by the authors as a good deal less than adequate for the task at hand, does not insist that income, or command over consumption, is the final objective of personal well-being. Nor does it insist that income is all that matters in determining individual well-being, or that personal characteristics do not matter, at given consumption levels. By either

approach, we can conceive of well-being depending on the same basic ingredients: goods consumed, the time spent in various activities, and personal characteristics.

Nor does the capabilities approach allow us to avoid making value judgments in welfare assessments. Which capabilities do we deem relevant? How do we deal with trade-offs, both between different capabilities of the same person, and the capabilities of different persons? Both approaches recognize that the valuation of individual "welfare", including the position one takes in aggregating gains and losses to different individuals, is fundamentally an ethical judgement. (Sen, along with Kenneth Arrow and others, has been a prominent exponent of that view in more mainstream literature.)

However, an important difference can emerge in the practice of policy analysis. The capabilities approach forces us to take a quite broad perspective on the range of factors considered relevant to individual well-being. By its somewhat more eclectic nature, the mainstream approach to the theory of policy more readily allows certain special assumptions to be made in applications. These are assumptions about those determinants of individual welfare which are difficult to observe. An example is the assumption that some suitably normalized measure of income or consumption is an adequate indicator of individual well-being, i.e., that individuals are identical in all other respects. This is a common assumption to make in conventional applied welfare analysis. I doubt if it would ever be easily accepted when applying the capabilities approach.

This may or may not matter; in some circumstances it can be quite innocuous to ignore non-income differences across individuals. But in other circumstances it could make a big difference to the conclusions one draws

about policies. For example, social sector policies have sometimes been judged solely according to what they do for productivity and, hence, incomes. Even if one confined attention to that most basic of capabilities - to be healthy - one would not take such a narrow point of view.

One potentially important difference does exist at a more theoretical level. There is a profound difference between the concept of "capability", in which objective "functionings" are the things which are seen to give well-being to a person, and the classical idea of "utility", in which subjective assessments of "happiness" or "satisfaction" serve that role. The latter need not reflect many real deprivations; an undernourished person may well be quite happy, but one could hardly say that she is not then deprived. Sen and others have been critical of utility based welfare analyses for this reason.

However, this argument carries less weight in application. Since we cannot (in general) derive sufficiently clear social welfare assessments of policy changes solely from information on individual preferences, there is ample scope in practice for other information when making inter-personal comparisons of well-being. "Utility functions" are a legitimate matter for ethical judgement in applied work. The practical problems of observing preferences can also lead to the incorporation of non-behavioral information in applied welfare analysis. (Individual preferences over market goods can often be deduced from demand behavior, though measurement problems abound; this does not, however, tell us much about how to value non-market goods, such as a parent's satisfaction from having children, or public goods.) Ideas on "endogenous preferences" (in which we see preferences as determined within the economy, rather than outside it) and "merit goods" (in which we may judge that

a policy matters even if no individual's utility is affected) are also found in the current mainstream approaches, albeit at the periphery.

Another difference between HPA and some other views is evident in the importance Dreze and Sen attach to human resource development through the public provision of social services. There is an emerging consensus in recent literature that human resource development, through improved nutrition, health, and basic education, must be given a higher priority than in the past; see, for example, World Bank (1989, 1990), and UNDP (1990). There is less sign of consensus on two further questions, both of which must be resolved if we are to act successfully in this important area of social policy:

i) What weight should be attached to investment in human resources versus current consumption, and other forms of investment? While one may agree that human resource development has been neglected, the optimal level of investment is unclear.

ii) What is the relative importance of private versus public provision as instruments for achieving human resource development? Many of the inputs to developing and maintaining human resources are essentially private goods (in that the benefits are exclusive to the individual consumer), and so there is a possibility for efficient provision through markets. Human resource development will then require that people want and can afford these goods. The case for direct public provision then depends on the adequacy of policy instruments influencing incomes and their distribution, or on the existence of relevant market failures. (For example, some ingredients of basic health care do have the properties of public goods, leading to under-provision by markets. There may also be economies of scale in public provision.)

On both issues, HPA advocates that the expansion of human capabilities should be the sole criterion in making policy choices. Clearly this tends to put a high weight on human resource development; indeed the latter can be defined so broadly that it is not obvious that anything else would matter. It also has implications for the mode of provision. Here HPA emphasize success in supplying social services through public provision, relative to success in expanding private incomes, as alternative instruments for human resource development. The role of food entitlements in famine relief is not questioned in HPA, but relatively less attention is given to the role of entitlements over goods in reducing chronic (rather than transitory) hunger.

The proper balance between public and private provisioning is a long-standing and difficult issue. HPA bases its prescriptions solely on the implications for human capabilities. Some well-known arguments against public provision of private goods do not then arise in any obvious way, such as the concern with the welfare losses from imposing a common level of public provision when tastes vary. Within the capabilities approach, the case for public provision rests heavily on the strength of the relationship between capabilities and incomes. In the case of nutritional capabilities, if there is only a weak link between "income poverty" and "hunger", relative to other factors, then Dreze and Sen are justified in putting less emphasis on incomes in reducing hunger (except in so far as growth facilitates the financing of public support, a role to which HPA does attach some importance, as will be discussed later).

There has been some debate about the relationship between income poverty and hunger in the past few years. A great deal of effort has gone into the question of how responsive nutrient intakes - particularly food energy intakes

- are to changes in income. Recent econometric estimates using household level data have suggested that food energy intakes are relatively unresponsive to income changes, even for the poor. (For a good survey see Behrman 1990). While I agree that some past estimates have over-stated the income response of individual intakes, it should not be inferred that the capability of being adequately nourished for good health is also unresponsive to income changes. This will depend on how changes in intakes are reflected in nutritional attainments, which will depend in turn on the severity of nutrient shortfalls relative to needs, as well as other things such as health status. These factors can easily interact in a way that strengthens the link between income poverty and "hunger" (broadly defined, as in HPA). For example, reasonable measures of undernutrition in Indonesia have been found to respond quite strongly to income gains, even though intakes at the individual level are relatively unresponsive to incomes (Ravallion, 1990). In this case, a "capabilities" perspective suggests that incomes may matter more than was otherwise thought, not less.

3 Data and methods

The methods of empirical analysis in HPA are also distinctive, though here it is not so much for their sophistication as their lack of it. Dreze and Sen seem particularly shy of econometric methods. Possibly they were concerned about the book's accessibility to readers unfamiliar with these methods. But surely that is determined more by the way results are presented than by the methods used to obtain them. Nonetheless, as someone who uses econometric methods routinely, I must say I was impressed by how far the

authors seem to be able to take us with little more than the investigative tools of 100 years ago.

One example should suffice. HPA presents some devastatingly simple estimates of the number of "missing women" in the world due to the gender bias in mortality. While there are 1,050 females to every 1000 males in Europe and 1,022 in Sub-Saharan Africa, the figure is as low as 941, 931 and 905 in China, India and Pakistan, representing 44 million, 37 million, and 5 million missing women, respectively, when judged against the African ratio of females to males. Dreze and Sen attribute this to higher rates of female mortality, which is taken to reflect sex bias in feeding and health care. They note that these figures are unlikely to reflect differences in birth rates by gender, though they do not discuss other possible explanations. (I can suggest one: The same factors that lead to such biases would presumably also yield some under-reporting of females in the household census.) Nonetheless these unsophisticated figures provide an alarming indication of the possible magnitude of the problem of gender bias in parts of the developing world.

But this sort of empirical analysis can only take us so far. There is a great deal of data with bearing on this and other questions raised in HPA which has not been exploited there. I suspect that at least part of the reason is that the more sophisticated methods needed to learn from such data have been shunned. I notice, for example, that hardly a scrap of household-level data on living standards has been used, despite the fact that many of the countries mentioned in this book now have such data, and most of them are readily available, and often for more than one point in time. And these are data with quite direct bearing on capability assessments (as well as more conventional welfare measures). The attainment of a variety of basic

capabilities and functionings can be assessed from a good household survey of living standards. Certain, now quite familiar, poverty measures can be interpreted this way: in the abstract, their objective is to assess the extent of some need fulfillment. (Elsewhere Sen has argued compellingly, in my view, that "poverty" should be viewed as "lack of capability"; see Sen 1984, Chapter 12, and 1987.) Here Dreze and Sen may reasonably question the sole use of the conventional consumption expenditure indicator of well-being in poverty measurement. But then we need not be confined to that particular indicator, and there are now many household surveys that allow other possibilities. Some of these surveys have also tracked the same households over two or more years, and can thus be used to help quantify the distinction made by Dreze and Sen (and others) between "chronic" and "transitory" poverty or hunger (Ravallion, 1988).

In discussing progress in reducing chronic hunger in Part 3 of HPA, Dreze and Sen rely almost exclusively on a few "social indicators", such as aggregate child mortality and average life expectancy. I found this surprising. These indicators are useful up to a point, but it must be recognized that they can be rather uninformative about the quality of the lives that people live - their capabilities, if you wish. One could hardly contend that they are good indicators of the attainment of the most basic capabilities, beyond being alive. In making comparisons over time, they may also be deceptively sensitive to even a limited degree of progress in primary health care, particularly when starting from a high mortality rate. While preventing the common infectious and parasitic diseases such as malaria is undeniable progress, there is a lot more to the elimination of chronic hunger and related deprivations. Furthermore, though these indicators are probably

influenced by the distribution of welfare, their usefulness as indicators of distribution is quite unclear. For example, they may not be as responsive to the well-being of the ultra-poor as we would like. And the low participation of this group in many policies ostensibly designed to help them (including some applauded in HPA) has been of serious concern (Lipton, 1983; Jimenez, 1985, Chapter 5; World Bank, 1990, Chapter 5).

Real progress - or lack of it - in reducing the persistent poverty underlying chronic hunger may show up little in these aggregate social indicators. Data inadequacies are not now a good enough justification; for example, there is a marked contrast between HPA and the broad set of measures of the well-being of the poor assembled in various chapters of the recent World Development Report (WDR) on poverty (World Bank, 1990). Well designed household based surveys have proved to be a potentially powerful tool for studying many of the dimensions of well-being discussed in HPA, such as access to social services, as well as command over private consumption goods.

4 *Famines*

A large part of HPA is devoted to policies for preventing famine, building on Jean Dreze's recent work (particularly Dreze 1990 a,b), as well as Amartya Sen's well-known earlier writings, particularly Sen (1981a). The latter book made an enormous contribution in exposing the limitations of the simple-minded view that famines are caused by a decline in aggregate food availability. The main information gathered by researchers attempting to understand the causes of a particular famine, or to anticipate future famines, has usually concerned aggregate food availability. Indeed, this has sometimes been the only information deemed necessary. Sen (1981a) has argued that this

approach has little analytical force in understanding some major famines of this century. Many of these were not associated with an obvious food availability decline. But even for those famines that may have been, the arithmetic of aggregate food statistics does not explain why similar shortfalls at other times or places did not also result in famines. Nor does it help us understand the incidence of famine mortality within a population.

Instead, Sen advocates study of the entitlements of famine victims. Of course, people may avoid or suffer starvation without a change in their entitlements; they may avoid it by illegal means or suffer it by choice. But it is claimed that by focusing on the determinants of individual budgets, the entitlements approach is useful in understanding how specific famines happen, and how they may be avoided. This perspective has clear antecedents in the literature on famines in India (see, for example, Bhatia, 1967, though recognition of the importance of entitlements probably goes back centuries in the subcontinent and elsewhere). Sen has contributed greatly in focusing analysis and policy on the role of entitlements in the causation and relief of modern famines. Some critics since Sen's work on this topic first appeared have taught us another valuable lesson, that even the clarity of Sen's writing is amenable to serious misinterpretation, and so Dreze and Sen offer some further clarification.

But the primary goal of HPA is to show how famine can be prevented by public action. A wide range of such action is discussed, generally focused on the key issue: how to avoid the contractions in entitlements suffered by vulnerable groups. This is not just a matter of avoiding transient distress, though that is ample motivation. Longer term chronic hunger is both a cause and effect of suffering during a famine. Protecting the entitlements of the

poor at such times can have an important long-term role in development (both in the excessively narrow sense of "economic growth", and the richer sense of expanded human capabilities). Dreze and Sen help further expose the dubiousness of classifying public actions in this context into mutually exclusive categories of "relief" and "development".

4.1 Markets and famines

The first step in formulating sound policies is to understand how existing allocative institutions work, of which markets are generally the most important. While the crucial response of markets to impending famine, and the role of public action, is given adequate attention in HPA, I shall elaborate a little on some of the issues here, and discuss some points which are not particularly well covered in the book. The main policy issues that arise concern both the spatial and intertemporal performance of food-grain markets.

There can be no presumption that spatial food movements through private trade will alleviate a famine; the food will probably move according to market prices which need not be higher in the worst-off regions (sufficient to cover transport costs). Following Sen (1981a), HPA points to the fact that there have been examples of food export from famine affected regions. This is termed a "slump famine", to indicate how the phenomenon depends on purchasing power contractions in affected regions.

However, there is a risk of some confusion here. The existence of food export during a famine does not mean that external trade has not helped stabilize domestic consumption. The crucial question is whether food exports declined during the famine (or imports increased). This begs two further questions: Did foodgrain exports respond to changes in relative prices? Did

the relative prices facing traders reflect domestic scarcities? HPA does not address these questions. The evidence on at least one supposed case of "slump famine" does not support the view that trade was consumption de-stabilizing (namely the famines in British India around the turn of this century; see Ravallion, 1987a). Equally well, there can be no presumption that governmental restrictions on food movements will improve matters, and there is evidence that they have not (Ravallion, 1987b). A better approach, well advocated in HPA, is to raise food purchasing power of the poor in affected regions.

Nor should it be presumed that the inter-temporal allocation of food availability achieved by markets during a famine will be ideal. Popular opinion would have it that markets work badly in this regard during famines, with current scarcities exacerbated by panic buying and excessive hoarding. Some experts have agreed (for example, a well-known handbook on famine and disaster relief recommends various actions against food hoarding; see Masfield, 1967). The very existence of private food stocks during famine has often raised considerable anxiety, not least amongst those threatened with starvation.

However, this assessment fails to appreciate the potentially important role of storage as a means of stabilizing consumption over time - a role which may well be desirable from the point of view of the survival chances of the poor as well as the profits of speculative traders. Whether markets work well in this regard will depend on how competitive they are and how well traders have anticipated future scarcity.

There is evidence of very harmful destabilizing speculation in one major famine, that in Bangladesh in 1974. Traders' price forecasting errors appear

to have been positively correlated with readily available information on damage to the future harvest (Ravallion, 1987b). Thus, rice hoarding prior to anticipated production losses was excessive when compared to the likely outcome with efficient markets. Rice prices rose to record levels in the months between the flooding and the arrival of the next (depleted) harvest and prices fell sharply in the week or two preceding the arrival of that harvest. The severe contraction in the food entitlements of the poor led to a sharp increase in mortality, which also peaked before the decline in aggregate food availability (Ravallion, 1987b).

The evidence on the Bangladesh famine also raises doubts about the performance of non-market food institutions. Rice prices in Bangladesh are influenced by changes in the government's foodgrain stock, itself determined by previous imports (including foreign aid) and internal procurement efforts. Thus, traders' expectations of the effect of pre-harvest crop damage on future prices require an assumption about the government's response to shared information. The most plausible conclusion is that the stockholders' over-optimistic price expectations and/or anticipations of future rationing during the 1974 famine were premised on a belief that the government would be unable to implement a suitable stabilizing response to the reported damage to the future crop.

Here a positive role for government is not to ban grain "hoarding". This is unlikely to work (it is not difficult to effectively hide stocks), and may even make matters worse by fuelling excessive price expectations, premised on a lack of confidence in the government's credibility. Rather, public action should be geared to supporting public confidence in future food availability and the stability of prices, through open market operations and

food distribution policies, backed up by adequate stocks and/or stabilizing external food trade or aid policies. By such means, Bangladesh has done a better job of avoiding famine in the 1980s (Osmani, 1987 ,

4.2 "Cash" versus "food"

Direct food delivery to potential famine victims is the most common policy instrument for famine relief. This has two distinct functions: i) raising aggregate food availability, and ii) raising the food entitlements of vulnerable groups. Dreze and Sen argue that there is a potential gain from separating these two functions. Selling food aid or imports in domestic markets and using the proceeds to reach the need^{er} may be more effective than direct food delivery. Cash transfers can also help even if aggregate food availability cannot be increased; for example, the authors point to the success of the Government of Maharashtra in India in avoiding famine in 1972-73 using a rural public employment scheme, even when food supply could not be rapidly increased.

There has been recent debate within and amongst some of the international agencies about the merits of monetizing food aid. It is not an issue around which one could say there is much current agreement in the development community. (For discussions of the various views held on the subject see Reutlinger, 1984, Berg, 1987, and Singer et al., 1987.) I found Dreze and Sen quite convincing on this issue. The important point here is that there can be no presumption that the usual policy of direct food delivery cannot be improved upon with given resources. The choice between cash and food relief must be judged by efficacy in helping those in need, and that will

depend on the specific setting, including the performance of food-grain markets.

Under competitive conditions, the case in favor of cash relief is strong if either food prices in the affected region are below world prices at the border (since, of course, recipients will then be able to purchase more food locally with the cash aid than the aid agency can obtain with the same money on world markets) or if private traders can deliver the food more efficiently than the aid agency. The case in favor of cash relief is less obvious if local markets perform poorly, although even then the policy switch may be preferable under some conditions; for example, cash relief can result in lower mortality than direct food aid even if the local food trade is monopolized, provided that (amongst other conditions) traders can still deliver food at lower cost than the aid agency (Coate, 1989).

A common argument against monetization of food aid is that donors are prone to be more generous when they know that their aid is given in the form of food. Dreze and Sen pay little attention to this argument, though I am unsure how much attention it merits. This case for food (rather than cash) relief clearly depends on the motives of donors. If they are concerned to save lives, then they should judge the issue in the same fashion as Dreze and Sen; an unconditional preference for the commodity form of aid could only reflect misinformation. The case is less clear if donors have some other objective.

Another common objection to cash relief is that it will lead to higher food prices. Dreze and Sen argue that this is fine provided that the higher food prices are the result of an effectively targeted cash transfer policy; those in need will still be better off. One could quarrel with the

theoretical generality of their argument here, as we are certainly not talking about conditions which rule out the possibility that initial gains to the recipient are substantially eroded by subsequent changes in relative prices (Ravallion, 1987b).

But focusing on that debate would risk missing the main point of HPA, which is to stimulate a more creative approach to policy formulation, and careful consideration of the relative merits of the policy options. As elsewhere in HPA, Dreze and Sen demonstrate that greater clarity of thought in distinguishing "ends" from "means" can enhance the prospects for effective public action against hunger.

4.3 Reaching the vulnerable

Whether in the form of cash or food, if transfers are to be effective in famine prevention or relief then they will have to be genuinely redistributive. The advantages of a well targeted transfer scheme are plain enough, though it should not be presumed that those advantages can be realized at little cost to the poor. Without the necessary administrative capabilities, targeting is not easy. For example, as Dreze and Sen point out, the underlying intra-household allocation of food will often adjust to countervail attempts to target certain individuals through supplementary feeding programs. The goal must be to protect the household entitlements of vulnerable individuals.

Amongst the alternative targeting mechanisms, Dreze and Sen argue for a combination of employment provision, whereby relief is given to those willing to work at low wages, and unconditional relief to those who are obviously unemployable. Direct employment provision as an element of a comprehensive

"safety net" for the poor also gets favorable reviews in other recent literature (see for example ILO, 1988, World Bank, 1990, Chapter 6, and UNDP, 1990). Some other discussions have been somewhat less enthusiastic (see, for example, World Bank, 1986).

Rural public works schemes have proved repeatedly in South Asia and in recent times in parts of Africa and Latin America that they are one of the few effective policy instruments available for reaching the able-bodied rural poor in times of need. The largest and most established relief work scheme is undoubtedly the "Employment Guarantee Scheme" run by the Indian state of Maharashtra since the mid-1970s, which developed out of the aforementioned successful famine relief efforts of that state in the early 1970s. This scheme aims to offer unskilled employment on rural infrastructure projects on demand, at wage rates on a par with going wages in agriculture. From the point of view of this discussion, the striking feature of the scheme is how responsive it is to good and bad agricultural seasons. The monthly attendance can easily vary by a factor of three within a year. Attendances peak in the dry summer period when there is little other work, and they vary from year to year, according to the vagaries of the monsoon. For example, severe monsoon failures in Western India led to record attendances at the scheme's project sites in 1987, and the employment provided was clearly instrumental in avoiding food entitlement collapses and famine.

The reason relief work schemes seem to be so well targeted is that they impose a cost (forgone income, transport cost, disutility of work) on would-be participants which tends to be lowest for those in greatest need. Critics of these schemes have pointed out that this is a deadweight loss. However, it can still be well worth incurring, given the costs of the alternative forms of

intervention. We simply do not have access to the sorts of policy instruments - such as perfectly targeted lump-sum transfers - which allow costless redistribution. In any case, it is very hard to believe that the cost of participation for the poor is high at times when famine threatens, so that the net transfer is likely to be a reasonably high proportion of wage receipts. But we have very little idea of just how high. This is important in assessing whether or not this is the most cost-effective form of relief. There is also much we do not know about the second-round effects on other sources of income (such as agricultural wages) and the risk benefits. (Ravallion, 1991, surveys evidence on the two largest schemes in South Asia). Nonetheless, I think we do know enough to agree with Dreze and Sen that direct employment provision is a potentially important policy instrument in this context.

It should be emphasized that an aim of this type of public action is to avoid the onset of famine by protecting the entitlements of the vulnerable; they need not already be starving, but they can see the impending risk. An effective system of famine relief should be ready to go into action as soon as it is needed, which will typically be well before external food aid can arrive. And it should ideally fall out of use when it is not needed. HPA discusses a number of success stories in famine prevention through such domestic public action, such as Maharashtra in 1972-73, and Botswana in 1982-87.

While saving lives is the over-riding goal, that is not the only reason to favor effective entitlement protection through public action. Though I have not seen any estimates, it is surely plausible that even the narrowly defined current financial costs of an effective system of early response are well below the costs of belated famine relief and rehabilitation. A timely

domestic policy response can also avoid the potentially disastrous consequences to the poor of their more desperate later responses, such as asset sales, and migration. Though individually rational, these responses can readily add-up to an enhanced collective risk of death, through exposure to disease, and leave those lucky enough to survive this time facing longer-term destitution through a diminished asset base or greater indebtedness. There is an evident complementarity here between the provision of an effective safety net for the poor and the longer-term alleviation of poverty through economic development.

5 *Chronic Hunger*

It is one thing to prevent famine, and quite another to eliminate chronic hunger. The bulk of the discussion of the latter problem in HPA focuses on past country experiences in using direct policy intervention in raising nutritional and related capabilities over the longer-term; the central question addressed is whether direct intervention can work.

HPA examines in detail the experiences of a number of relatively successful efforts at longer-term public support in developing countries, as indicated by rates of improvement in social indicators, particularly under-five mortality. In characterizing these experiences, a distinction is made between "growth-mediated security" and "support-led security"; the former relies on growth to finance public support, while the latter does not. Expanding on earlier work by Sen (particularly 1981b), the authors show how countries such as China, Costa Rica, Sri Lanka, Chile and Cuba have used direct intervention in public provision to achieve the social indicators typical of richer countries. For example, Sri Lanka's life expectancy of

about 70 years is higher than that of many countries with far higher average incomes; in Brazil, for example, life expectancy is 65 years for a country with roughly four times Sri Lanka's GNP per capita.

HPA's optimism on the scope for direct support-led security is shared by many other recent writings on the subject, including World Bank (1986), FAO (1987), Berg (1987), UNDP (1990), Brown University Faculty (1990) and a series of public declarations in recent years.² There is a subtle but potentially important difference of emphasis between these writings and the 1990 WDR (World Bank, 1990). In the latter document one finds a more qualified, but still fairly positive, view of the prospects for certain sorts of direct public support, particularly in the social sectors and in the provision of income "safety nets". However, in overall tone at least, the 1990 WDR clearly sees direct support as less important instrument for poverty alleviation in the longer-term than achieving the right sort of economic growth.

In identifying their success stories of support-led security, Dreze and Sen look for large deviations below the line of best fit between under-five mortality (on the vertical axis) and GNP per capita (horizontal axis). This approach follows Sen (1981b). The aim is not to model mortality, but rather to control for income variation in assessing performance. The authors dwell little on the fact that their results suggest that GNP per capita is generally an excellent predictor of mortality; their concern is more with the cases where it is a weak predictor, i.e., the "outliers".

Again, one can question the methods of investigation used here. The authors appear to have used an ordinary regression of mortality against GNP per capita (both in logarithms) to find the outliers. (The regression equation is not given, nor is there a single summary statistic or diagnostic

test.) This particular estimator - which minimizes the sum of squared deviations to find the line of best fit - is known to be suspect when there are outliers; in effect, it tries "too hard" to accommodate the extremes. From the plotted data points in HPA, I would be particularly worried about the effects on these estimates of some of the large deviations above the trend, which have under-five mortality rates as much as five times higher than other countries at a similar average income (Oman is an example). The issue here is not that these extreme figures are suspect, but rather that they will have undue influence on the fitted regression equation. With this rather crude estimation method, the quantitative assessments in HPA of performance relative to income are questionable. A better procedure would probably have been to look at the residuals around a line of best fit which minimized the absolute deviations (the so-called MAD estimator).

The Sen (1981b) methodology of looking for outliers in a regression of social indicators against mean income has been criticized in recent literature for another reason. Bhalla and Glewwe (1986) have argued that this approach fails to control adequately for "initial conditions". They re-examine the case of Sri Lanka, which Isenman (1981), Sen (1981b), and HPA have claimed to be an above average performer in terms of its social indicators, given the country's income level. Bhalla and Glewwe estimate regressions across countries of the changes in various social indicators from 1960 to 1978 against changes in mean income over the same period (rather than having both variables in levels for a single date, as in Sen, 1981b, and HPA). In the process, their results also suggest that income growth is negatively correlated with changes in the social indicators (though they comment little on this particular result). Using these regressions, they find that Sri Lanka

is generally below the regression line, not above. They conclude that, once one controls for initial conditions, Sri Lanka's performance is unexceptional.

Single cross-country comparisons can sometime be deceiving, but this particular criticism of the Sen and HPA methodology is hard to accept in my view. Under seemingly plausible assumptions about the underlying theoretical model determining social indicator performance, one can show that the Bhalla and Glewwe results (notably that Sri Lanka is below their regression line and that the line is downward sloping) are entirely consistent with the claims of Sen and HPA (Ravallion, 1986). Furthermore, Sri Lanka's excellent social indicators at the start date for the Bhalla and Glewwe study can be presumed to also reflect previous levels of public support (Sen, 1988, 1989b). It would clearly be hazardous to conclude that a low rate of improvement after that date indicated that support-led security had failed. An analysis of the time-series data on various social indicators (infant mortality, death rate, birth rate) for Sri Lanka over the period 1952 to 1981 suggests that public support, particularly through outlays on health, has been instrumental in the observed improvement over time (Anand and Kanbur, 1990).

HPA gives a lot of attention to the interesting comparison of China and India, in terms of their performance in public support over the past 40 years or so. (Also see Sen 1989b.) The relative success of China in enhancing longevity (with, the authors argue, similar rates of economic growth), is contrasted to the greater success of India in avoiding famine since the 1950s. While India has successfully avoided famine through effective public intervention over this period, China experienced what was arguably the worst famine in recorded history in 1958-61; the estimates of the excess mortality in that famine vary from 17 to 30 million persons! The freer press and more

open political environment of India is cited as an important part of the explanation for the differences in the success in avoiding famine, which is far more newsworthy than chronic hunger. I would expect that the anti-hunger gains from these sorts of freedoms are highly conditional on a variety of other factors in a given society, such as the existence of a sizable educated middle class, as in India. These other factors receive little attention in HPA. On the other hand, Dreze and Sen argue that China was able to raise longevity through active intervention in health care and food distribution, at least up to the late 1970s. (There are also signs that the crisis in public provision in the 1980s has eroded some of these gains, and during a period of higher economic growth rates and falling incidence of income poverty, particularly in rural areas.)

However, a number of questions are left begging by the treatment of longer-term issues in HPA. One which many readers will ask is: Can support-led security can be achieved without undue sacrifice to a long-term expansion in those capabilities which do require private consumption goods? Some of the economies which have pursued support-led security over long periods, such as Sri Lanka, have had less than impressive rates of economic growth. One gets the impression that Dreze and Sen do not see any necessary trade-off - that support-led security need impinge little on future prospects for growth-mediated security. I believe that quite a credible argument to that effect can be made, but it will not be found in HPA. Whether a significant growth cost is incurred in practice will depend on various conditions, notably the structure of the economy (including any existing macroeconomic imbalances) and the resource costs of intervention (which, as Dreze and Sen do point out, may be quite modest in poor countries, though little hard evidence is presented).

By at least one assessment, the growth cost of direct poverty alleviation is likely to be small provided that (and it is an important proviso) there are no significant macroeconomic imbalances (Bourguignon, 1991). HPA throws little light on the prospects for a development strategy which combines support-led security at an early stage with growth-mediated security in the longer-term. It would be interesting to know if any of the countries identified in HPA as examples of growth-mediated security would have been examples of support-led security at some earlier time when they were much poorer.

Related to this, a number of questions are left begging about the role of public action in promoting equitable growth in private incomes - not as an end in itself, I hasten to add, but as an instrument for higher ends ("increasing utility" or "expanding capabilities", as you prefer). Very little attention is given to the identified examples of growth-mediated security (Hong Kong, Singapore and South Korea). I would expect that, with the sustained periods of equitable growth experienced by these countries, capabilities requiring private consumption goods have expanded greatly for the poor, as have those requiring public provision. There are numerous questions about how public action can help here. To give just one example, scant regard is given in HPA to the policy issues which arise in achieving pro-poor technical progress in agriculture.³

The fact that HPA throws little light on these questions is oddly asymmetric with the earlier analysis of famines. For example, the same basic issues of cost-effectiveness, such as targeting versus uniformity, that HPA covers quite adequately in the context of famine relief policy, also arise in the formulation of longer-term social sector policies, but are hardly mentioned in that context.

Analogously to the HPA search for countries with good social indicators relative to their incomes, it would be interesting to also look for those with good social indicators relative to their levels of public expenditures on social services. There can be no presumption that simply throwing more money to the "social sectors" (health and education) will go far toward expanding the capabilities of the poor; indeed in many countries a disproportionate share seems to have gone to raising the capabilities of those with relatively ample capabilities already (Jimenez, 1987, Chapter 5; World Bank, 1990, Chapter 5). Nor has the evidence from micro-level anthropometric observations of participants in direct nutrition programs been anything but mixed; some assessments (such as Berg, 1987) have been more encouraging than others. (See the survey by Beaton and Ghassemi, 1982; also see World Bank 1990, Chapter 6). Opportunities for social sector policy reform, aiming to better reach those in greatest need, may be severely constrained by the limited set of redistributive policy instruments in many developing countries, particularly in rural sectors. The cost of an effective system of public support will depend crucially on those constraints. The detailed issues of policy design and implementation within actual administrative capabilities are of the utmost importance to many of the countries which could benefit from switching to a strategy of support-led security.

6 *On the role of the international community*

A theme of HPA is that one should not underrate the scope for successful domestic public action in developing countries. Nor should one underrate the importance of the latter for effective external action. The most well intentioned international efforts in famine relief can easily fail without

supportive domestic action, or at least a sound understanding of the likely responses of the recipient economy and polity to those efforts. Furthermore, as we saw in the 1984-85 famine relief effort in Ethiopia and Sudan (as Dreze and Sen argue), the agents in effective external public action are a much wider group of people and institutions than foreign governments and international agencies. And, their instruments for action involve more than aid. They include international awareness, and advice on what is possible.

That said, it must be expected that external development assistance in its various forms will remain important for both famine relief and longer-term development. A good deal of recent discussion has focused on food aid within that set of policy instruments. Here, one of the key questions that is stimulated by the work of Sen (1981a) and HPA is the role of increases in aggregate food availability in famine relief. Given the potentially dangerous confusion that has sometimes arisen over that role, some further comments are called for here.

Though it is certainly not an implication of Sen (1981a) or HPA, there is a belief in some quarters that an increase in aggregate food availability is not called for to stop a famine that was not itself caused by a decline in aggregate availability. And the belief seems to have occasionally been put into practice. For example, the sluggish response of some aid agencies to early warnings of the 1984-85 famine in Ethiopia has been attributed to their assumption that private food surpluses in the country were sufficient to maintain aggregate consumption, in spite of the recent drought. Of course, the aid agency's ex ante assessment of aggregate availability is bound to be imprecise and it now appears likely that availability was seriously low in Ethiopia in 1984-85. But this is a different issue. The question here is:

even if aggregate domestic availability is not threatened, can there be a case for emergency interventions aimed at increasing the supply of food to the domestic economy in response to signs of an increase in starvation?

The case in favor of increasing aggregate food availability in response to a famine can remain highly persuasive even if the famine was not caused by a decline in aggregate availability. To illustrate, consider the stylized case of starvation arising from an adverse shift in food distribution, as a result of which, the poor end up with a lower share of an unchanged aggregate. In principle, the absolute consumption levels of the poor could be restored either by restoring the previous distribution of food, or by increasing aggregate availability. It is not difficult to imagine situations in which the first option is unfeasible in the (crucial) short-run.

To give another illustration, suppose that private storage is deemed to be excessive. A government may deal with this by sending the police out to bash up "hoarders", as happened, for example, during the Bangladesh famine of 1974. This may work, but one suspects that it is generally more effective as a public relations exercise (aimed at promoting the view that the government is punishing some of the culprits for the food shortage), than as a means of increasing current food consumption. And one must also appreciate the importance of the government's behavior to the formation of stockholders' price expectations. As discussed above, the immediate goal of governments or aid agencies in these circumstances should be to take actions that lead stockholders to revise downwards any excessive expectations of future prices. A believable undertaking to import food would almost certainly do this; an unbelievable promise to bash up hoarders may well have the opposite effect.

However, it should also be noted that, although the case is often strong for increasing aggregate food availability during a famine, this need not mean that direct food delivery is the best available form of intervention, from the point of view of minimizing mortality. Under the circumstances discussed earlier, the monetization of food aid, to facilitate cash payments to potential famine victims, may provide more effective relief than the usual policy of importing and distributing food.

7 Conclusions

1990 saw the publication of a number of major works and public declarations advocating concerted effort to greatly reduce poverty and hunger in the 1990s. This article has focused on one of these works, "Hunger and Public Action" by Jean Dreze and Amartya Sen, though it has tried to draw out the contrasts and similarities with other recent writings, and the implications for future research and policy.

Dreze and Sen argue convincingly, in my view, that there is a positive role for public action in both famine relief and the longer term alleviation of poverty and hunger, and that it is a role that poor countries with limited domestic resources can go along way toward fulfilling. They need not wait to be rich countries.

In arguing the case for such public action, particularly in the longer-term, the authors put less emphasis on raising incomes (except in so far as that mediates public support) than one finds in some other recent writings on this general topic, such as the 1990 World Development Report on poverty.

In my view, Dreze and Sen are entirely justified in their criticism of the use of average output as the sole indicator of progress in development. A

high average income can allow great scope for wide-spread well-being, but it does not guarantee it. However, one should be careful not to lose sight of that fact that mean income is one of the relevant parameters of well-being; the others are the distribution of income, and the provision of crucial non-market goods, notably basic social services. There are some notoriously difficult problems here in finding the right balance between "growth" and "equity", and between the provision of goods by "private" and "public" means. The position one takes will depend in part on one's views about human well-being and social welfare at quite an abstract level. It will also depend crucially on country specific circumstances, including past rates of growth, and levels of income inequality and social service provision. Focusing on the expansion of basic human capabilities can help clarify some of these issues, though I am unconvinced that this perspective leads one to seriously doubt the instrumental importance of attaining growth with equity in most developing country settings.

Thus it is not sufficient to know that poor countries need not wait to be rich countries before providing social security - one also needs to know if they will then need to wait any longer to be rich countries. It cannot be presumed that they will, though there is little more that one can say without knowing the economic circumstances and policy details. This is an important topic for future research.

There are a number of as yet unanswered questions about the capabilities approach to defining the objectives of public action. For example, since the approach eschews utility based welfare assessments, one might find that the policy choice which has the greatest impact on basic capabilities, such as health, may be judged to be inferior to some other choice by all affected

individuals. One should be wary of a sole reliance on utility information (for example, in other work Sen has shown how utility based assessments of policy choices may contradict other valued principles, such as liberty; see Sen, 1970, Chapter 6). That is certainly no less true in discussing matters related to health. But these arguments fall well short of convincing me that one should ignore utility information altogether. The best way to incorporate that information in policy evaluation, and what trade-off is to be accepted against other objectives, remains unclear.

"Hunger and Public Action" does offer authoritative encouragement on the potential for effective public action against hunger. Famines can be avoided, and we need not wait for an increase in domestic aggregate food availability to do so (though not denying that that will almost certainly help). Chronic hunger and the threat of destitution can be greatly alleviated, and we need not wait for growth to do the job (though not denying that the right sort of growth is a powerful weapon, and that public action has a role in promoting that growth). While I believe that a reasonably broad consensus now exists on these propositions, great challenges remain in both the analysis and implementation of effective public action against hunger in specific country circumstances. There is still much we do not know about how to go about making a success of public support. This should be a high priority for future research on development policy.

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Endnotes

1. Dreze and Sen (1989) is the first in a series of books reporting results of research sponsored by the World Institute of Development Economics Research, United Nations University. Other volumes include Dreze and Sen (1990).
2. Namely the "Cairo Declaration" of the World Food Council, the "Bellagio Declaration" organized by the World Hunger Program, Brown University, and the "Bangkok Affirmation" by the Task Force for Child Survival; these are reprinted in the August 1990 special issue of Food Policy. Also see the introduction to that issue by Kasperson and Kates, 1990.
3. This is widely believed to generally, though not always, reduce undernutrition; for a survey see Pinstруп-Anderson and Hazell 1985.

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